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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,919	10/23/2000	Tomohito Shida	1083.1076/JDH	8369

21171   7590   08/15/2006

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ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/693,919	SHIDA, TOMOHITO
	Examiner	Art Unit	
	Arthur Duran	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,20 and 21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,20 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-17 and 20, 21 have been examined.

Response to Amendment

2.   The Amendment filed on 6/28/06 is insufficient to overcome the prior rejection.

Continued Examination Under 37 CFR 1.114

3.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 6/28/06 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the

invention. It is unclear from claim 1 whether the 'coefficients defined for factors reducing'

refers to both 'the transactions' and 'numbers of transaction reservations' or only to 'the

transactions'.

Claim 1 recites the limitation "the transaction". There is insufficient antecedent basis for this limitation in the claim. There is no priorly stated transaction. It is unclear what 'the transaction' refers to.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

'Coefficients defined for factors reducing number of transactions reservations' is not supported by the Specification. Only coefficients defined for factors reducing the transactions is supported by the Specification.

Also, note that these 35 USC 112 rejections regarding claim 1 also apply to the other independent claims and their dependent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-17 and 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schiff (6,477,533) in view of DeLorme (5,948,040) in view of Baker (6,266,648) in view of

Cragun (6,622,125) in view of Demir (2001/0044788) or in view of Campbell (5,918,209).

        Claim 1, 17, 20, 21: Schiff discloses a method for accepting transaction reservation,

comprising the steps of:

        electronically presenting information on discount services defined for each time period to

a plurality of customers (col 20, lines 41-44; col 20, lines 58-65; col 22, lines 1-13 ; col 11, line

60-col 12, line 17; col 12, lines 22-36; col 7, lines 20-34);

        electronically accepting information on transaction reservation of discount services at a

selected time period by a customer (col 12, lines 17-23; col 12, lines 22-36); and performing a

transaction according to the reserved discount services, when the visiting time of a customer to a

shop, or the finish time of the transaction is included in the time period in association with said

accepted information on transaction reservation (col 20, line 49-col 21, line 12; col 13, lines 17-

22; col 1, lines 22-26; col 22, lines 1-5; col 12, lines 14-17).

        Schiff further discloses that the time period can be a defined as a term for the transaction

(col 20, lines 41-44; col 20, lines 58-65; col 22, lines 1-13).

        Because Schiff discloses custom packages can vary based on sailing date and special

discounts (col 1, lines 21-26), Schiff implies that custom packages can be created where special

discounts and sailing dates are related variables to the overall package.

        Schiff further discloses that incentives, time periods, and reservations are related (col 22,

lines 1-13; col 1, lines 22-26), accepting the transaction reservation for the transaction target,

performing a transaction in accordance with the transaction reservation (col 12, lines 17-36), and

re-presenting data based on the accepted transaction reservation for the transaction target (col 11, lines 10-16; Fig. 2b; Fig. 3a).

Schiff does not explicitly disclose that the discounts are related to the time period that the reservation is made for.

However, DeLorme discloses that presenting bargain data to a transaction target related to the time period that the reservation is made for (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6; col 41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45).

DeLorme further discloses re-presenting bargain data based on the accepted reservation for the transaction target (Fig. 9b; Fig. 7b; Fig. 7a; Fig. 5d, item 595).

DeLorme further discloses a terms determination unit for determining terms for a transaction of a transaction target for each time period (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6; col 41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45); and a display system for displaying the terms for the transaction, wherein the transaction reservations are made via the plurality of terminal devices based on the display terms for the transactions (Fig. 5d; Fig. 1c; Fig. 9b).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add DeLorme's reservations goods or services with time period based discounts to Schiff's time period, reservation, discount related information. One would have been motivated to do this in order to provide the customer with further, specific information on the relation of time periods, reservations, and discounts.

Baker further discloses benefits and discounts (col 1, lines 10-50); reservations (Fig. 3); timing restrictions and other terms on applicable discounts (col 1, lines 55-62); time frame

restrictions and other terms on applicable discounts (col 5, lines 35-45; col 6, lines 40-47; col 6, lines 47-61; col 7, lines 4-11);

Baker further discloses offering specialized target discounts where the terms or target can be varied including varying time periods for when the discount would apply (col 8, line 60-col 9, line 10) and specialized discounts based on the time between the when the reservation is made and when the reservation is made for (col 9, lines 14-26).

Baker further discloses correlating time periods for reservations to discounts (col 9, lines 31-64).

Baker further discloses that different time periods have different discounts and that the discount information for the different time periods is dynamic (col 10, line 59-col 11, line 7). Also, note that Baker discloses that the time between when the reservation is made and the time that the reservation is made for can be relevant to the discount amount (col 9, lines 14-26). Therefore, both the reservation time and the time period the reservation is made for are relevant to the discount.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Baker's reservations for goods or services with time period based discounts that reflect temporarily changing conditions to Schiff's time period, reservation, discount related information. One would have been motivated to do this in order to provide the customer with further, specific information on the relation of time periods, reservations, and discounts.

Baker also discloses varied time periods (June or July) and that the user can select a time period within the varied time periods (col 10, line 58-col 11, line 7).

Also, note that Baker (col 9, lines 14-26) discloses 'rapidly changing conditions' and that a discount is offered several days before a certain date and that the discount is offered for that date based on the temporarily changing condition that the plane is half full. Therefore, both the time period that the reservation is made in (several days before), the time period for the transaction or travel to be enacted (the date of the flight or the time period that the user will be away or travelling), and the temporarily changing condition (the plane is presently half full) of the reservation are relevant to the discount being offered.

Additionally, DeLorme discloses making reservations and that information on factors affecting reservations can be provided to the user and that temporal data that affects reservations can be provided to the user including information such as time periods and weather related information:

"(9) http://www.expedia.msn.com offers a similar Internet Web Site "travel agency" to book flights, hotel rooms, and rental cars; to participate in travel forums; and to browse assorted news, weather, currency, multimedia guidebooks, and photographs. These types of online systems have some capability in permitting the user to gain access to a wide array of services, including travel and activities; however, as earlier noted, this capability is not easily enacted in that the user must go through a considerable search process in order to gather information regarding topics, events, available goods or services, and/or points of interest at the travel destination or along the travel route, or related to the user's selected travel time frame. Other Internet sites concentrate on local directory listing information but do not provide readily useable travel planning, itinerary, routing and/or booking capabilities--e.g., CitySearch.TM. and MetroBeat.TM. at http://www.citysearch.com and Bigbook's Internet Yellow

Pages at http://www.bigbook.com (col 3, line 63-col 4, line 15);

(66)   Also included in the standard TRIPS data structure, shown in FIG. 3, is a sub-

structure for characteristic TEMPORAL DATA, in turn, managed primarily by the Temporal

Subsystem 223 in FIG. 2 (also, in TIMES, at 419, in FIG. 4). Such TEMPORAL DATA

addresses years, dates, times, other usual chronological measures, indicators and/or arrays

pertaining to events, time periods, appointments, actual happenings or postulated temporal

occurrences--as recorded, proposed, scheduled, negotiated or predicted at points or periods in

time, typically by one or more persons, interested parties or organizations, including TRIPS

retail users or participating travel information/service providers. In FIG. 2, TRIPS 203 stores,

retrieves and processes TEMPORAL DATA or chronologically related information utilizing

well known means. TEMPORAL DATA in FIG. 3 and corresponding Temporal or Times

Subsystem further include or manage the following: (1) for typical well-articulated TRIPS

embodiments, an extensive, browsable, searchable calendar database and display of EVENTS

OF INTEREST (EOIs) for queries and responses related to scheduled, predicted or proposed

event of all kinds; (2) the related SCHEDULER sub-menu functionality for travel itinerary

management, as presented heretofore in FIG. 1C under 161, and further described hereinafter

relative to FIG. 6; (3) digital almanac functionality formed of tools and data related to the

dates/times and other dimensions of natural phenomena--such as sunrise, sunset, high and low

tide, moon phases, rainfall/temperature averages, and other data which is useful for planning

and scheduling outdoors activities like hiking, camping, boating, observing nature, and so forth-

-as described in more detail hereinafter, with particular reference to FIGS. 6 and 9; (4) updates

or more current information on diverse topics, replacing or supplementing earlier information

and preferably provided online for freshness" (col 33, lines 17-52).

DeLorme further discloses discounts and special offers that vary (below and throughout

the DeLorme disclosure):

"(6) The user can make reservations and buy various tickets in "real-time" online--and

download "today's" special <u>discount</u> offers from hosts of participating restaurants, hotels, retail

shops, car rental agents, outdoor expedition outfits, or other third-party providers of

goods/services throughout the United States, Canada and Mexico (col 14, lines 25-35);

(11)(2) paper or sheet media maps, travel directions, itineraries or travel schedules,

reservation/<u>discount</u> offer/ticket documents, supplemental text and/or graphic information about

events of interest (EOI) or points of interest (POI) 109" (col 15, lines 35-40).

DeLorme discloses special offers presented relative to temporally changing conditions

including the utilization of time periods:

"(49) for example, including other characteristic TRIPS records information about one or

more lodgings or other accommodations located nearby the performance location(s), or

available transportation to the performance(s), or proximate timely <u>special</u> offers e.g.

for tickets to the music performance(s). More details on combined searches appear hereinafter

relative to FIGS. 2-8 (col 29, lines 1-10);

(119)>(2) persons in the reservation party, and so forth--using the 595 dialog box. The

595 dialog box includes facilities for the user to input or accept <u>special</u> offers, such as a

<u>discount</u> for meals at certain times. The user executes or "books" the proposed reservation,

pushing the "BOOK IT" button in the "RESERVATIONS--TICKETS--COUPONS" dialog box

(col 50, lines 37-45);

(155) Thus, the TRIPS invention facilitates not only individualized travel planning or

informational output but also contractual or transactional travel arrangements--e.g. ticket

purchases, making reservations, taking advantage of special goods/service offers or options

(typically subject to locational and temporal restrictions or conditions)--and so forth (col 63,

lines 35-45);

(166) 5) date/time i.e. one or more chronological points in time, time-frames or temporal

ranges relating to the goods/services designated in the TRIPS map ticket e.g. air flight departure

date/time, time period for which a special offer is open, curtain time or the duration or start time

of an entertainment or educational event, seasonal/calendar/natural phenomena temporal

information, hotel check-in time, service appointment date/time" (col 67, line 60-col 68, line 2).

Baker discloses discounts to changing conditions such as locations and short time frames,

the providing of discounts related to inventory, and the providing of discounts related to special

conditions such as a service being half-utilized or half-full:

"(25)   Further, the system offers the unique benefit of allowing service and goods

providers to make available specialized "niche" discounts or marketing schemes. Since the

system sorts or correlates benefit information, it would allow providers of goods and services to

target particular segments of the market. For example, in the travel industry, hotels could offer

through the system special discounts at particular locations or for very short time frames, in a

manner which would not otherwise be economically feasible with other marketing methods. In

the case of those offering goods for sale, a geographically weak sector of the market or one

which has excess inventory could be specifically targeted for <u>discounts</u> in the data base. In

other words, the system allows particular segments of the market to be precisely targeted by

providers of goods and services offering <u>special discounts</u> to consumers affiliated with enabling

organizations (col 8, line 60-col 9, line 10);

(26) A further advantage of the system relates to the relatively short lead times required

in connection with offering benefits. According to the system, <u>discounts</u> could be developed

and offered very quickly with very short lead times by simply adding an enabling organization

benefit file to the database along with associated correlation information. This would enable a

service provider to take advantage of rapidly changing conditions or short-term opportunities.

As an example, several days before a scheduled flight, an airline might recognize that a flight

was going to depart half-full. Under such circumstances, the airline might wish to offer

<u>discount</u> benefits to members of particular enabling organizations which patronize the airline.

The result is a marketing benefit for the airline and a <u>special</u> premium to the enabling

organization, as well as its members" (col 9, lines 10-26).

Cragun discloses utilizing time, date, weather, customer, in-store data to predict customer

sales and utilize the information with a purchase advisor system (Fig. 18; Fig. 19).

Cragun discloses the discount services are determined based on calculations results of

factors affecting the discount services, providing promotions based on time periods and factors

that affect the purchases for those time periods, providing promotions based on calculations of

factors that affect transactions during different time periods or under different conditions:

"(10) In a parallel distributed processing model, information processing takes place

through interactions of simple processing elements that send excitatory and inhibitory signals to

other processing elements. In a neural network, a data item is represented in numerical form and is presented to the neural network. In this context, the processing elements referred to as neurons can represent, for example, hypotheses about which sales promotion program is most likely to elicit viewer interaction given a weather season or which sales promotion program is most likely to attract viewers given a particular time of day. In the preferred embodiment, neural network architecture comprises a first group of input neurons, each of which are connected to one or more layers of intermediate neurons. The layers of intermediate neurons are connected together and ultimately to a layer of output neurons. Information is processed by the network as data flows from the input neurons, through the intermediate layers, and finally to the output neurons. Each neuron in one layer is connected to every neuron in adjacent layers (col 6, lines 27-46);

(6) Trends in purchases are sometimes relatively simple to observe. For example, there typically is a seasonal need for particular items, such as coats during winter or sandals during summer. Both national and local marketing campaigns might choose to call attention to such items through a sales promotion comprising a temporary price reduction. Presumably, customers will be motivated by the seasonal need and by the price reduction to purchase the items, thereby creating higher volume sales and increased profits. Another example of an in-store sales promotion is one that occurs after a sales clerk completes a transaction for the purchase of an item by suggesting the purchase of a complementary item. A typical suggestion occurs when, for example, a clerk suggests the purchase of an electric light bulb after a customer has already purchased a lamp or suggests a sauce or topping to go along with a

purchased food entree. Given a set of sales <u>promotions from which a promotion</u> is selected, a better quality selection is one that is more likely to result in an additional purchase (col 1, lines 40-60);

(48) After all of the purchase transactions in the relevant <u>time period</u> have been processed, an outcome of "done" at the decision box numbered 224, the processing for the creation of the class update structure is finished (box 225) and processing resumes with the flow diagram box numbered 204 in FIG. 14 (col 15, lines 4-10);

(57) The first data field illustrated in the data structure 303 is for the <u>time</u> of day 304. <u>Time</u> of day can be important in predicting customer populations because, for example, buyers with particular characteristics might shop early in the day as opposed to those who shop late in the day or late in the evening. The next data field is for the date 306. The date field permits the system to account for <u>seasonal</u> buying characteristics, holiday variations, and other buyer characteristics associated with the day of the week, month, or year. A <u>weather</u> data field 308 permits the system to further account for <u>seasonal or other weather</u>-related phenomenon. For example, <u>rainy weather</u> likely will result in a customer population favorably disposed to suggestions for purchases of <u>rain</u> gear such as boots, umbrellas, and overcoats, regardless of other purchases made during a store purchase transaction" (col 17, lines 30-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Cragun's discount services that are determined based on calculations results of factors affecting discounts services to DeLorme's special offers/discounts related to temporal conditions. One would have been motivated to do this in order to better assess how temporal conditions affect transactions and offer optimal promotions.

Additionally, DeLorme discloses offering the services based on the confirmed reserved

transaction and DeLorme discloses valid reservation confirmations and offering reservations that

allow the utilization of special offers or discounts:

"The system provides printed or electronic output that may include any one or more of

text itinerary, ordered set of travel maps, customized collection of information on points of

interest information and a selected array of valid reservation confirmations, tickets and/or

discount coupons coded with elements for automated recognition and processing. Mobile users,

including GPS-linked users, can access the system via wireless communication units (Abstract).

More particularly, the present invention relates to Travel Reservation and Information

Planning Systems (TRIPS) that provide travel information and special offers for goods and

services such as accommodations and reservations associated with such areas of interest (col 1,

lines 30-37).

(7)…These paperwork problems tend to be restricted to airline tickets and hotel

reservation confirmations. However, a less developed but perhaps more important type of

paperwork may be vouchers and various types of coupons associated with entertainment and

activity sites located proximate to a travel destination (col 2, line 65-col 3, line 5).

(28). . .TRIPS output is further capable, at 147, of including an airline reservation or

other transportation coupons or vouchers, and/or various special price discounts and/or extra

services offered by an extensive range of accommodation and goods or service providers that can

participate in TRIPS e.g., hotels, banks, campgrounds, retail stores, hairdressers, gas stations,

restaurants, taxis, video rental shops, tour guides, public safety, or health facilities--among

many others. Thereby, TRIPS output provides the advantages of "built-in" reservations, tickets

and/or special offers--as an intrinsic part of digitally generated, electronic and/or printed travel

plan output also typically including maps, travel directions, itinerary or scheduling information

concisely arranged in relation to the geographical/temporal order of travel--rather than a loose

disarray of easily misplaced travel papers. The transactions involved in TRIPS reservation,

ticket and/or special offer services are described hereinafter, particularly referring to FIG. 8"

(col 21, lines 40-57).

Also, DeLorme disclsoes discount services defined for different time intervals or time

periods:

"(119) The 595 dialog box includes facilities for the user to input or accept special offers,

such as a discount for meals at certain times. The user executes or "books" the proposed

reservation, pushing the "BOOK IT" button in the "RESERVATIONS--TICKETS--

COUPONS" dialog box. The TRIPS technology communicates the reservation request and

facilitates its acceptance, rejection and/or alteration or a counteroffer from the participating

provider e.g. the Palisade restaurant or its agent(s) (col 50, lines 40-50).

(125)...a time-framed special offer for goods or services posted in TRIPS by a

participating third-party provider; or a time/date as negotiated by and between the retail user and

the TRIPS system operator and/or participating third-party provider for a dinner reservation, a

theatre or musical performance ticket, an educational conference, a sports or cultural

event, a scheduled flight or a passage or cruise by ship, and the like (col 52, lines 27-35).

(166). . . 5) date/time i.e. one or more chronological points in time, time-frames or

temporal ranges relating to the goods/services designated in the TRIPS map ticket e.g. air flight

departure date/time, time period for which a special offer is open, curtain time or the

duration or start time of an entertainment or educational event, seasonal/calendar/natural

phenomena temporal information, hotel check-in time, service appointment date/time, the

TRIPS user's estimated arrival time at a specific location (e.g. as computed by routing software

in the TRIPS Geographic Subsystem), a mutually agreed-on meeting date/time entered by the

user, and so forth" (col 67, line 60-col 68, line 5).

Baker further discloses offering specials in relation to timing and to changing conditions:

"This would enable a service provider to take advantage of rapidly changing conditions

or short-term opportunities. As an example, several days before a scheduled flight, an airline

might recognize that a flight was going to depart half-full. Under such circumstances, the

airline might wish to offer discount benefits to members of particular enabling organizations

which patronize the airline. The result is a marketing benefit for the airline and a special

premium to the enabling organization, as well as its members" (col 9, lines 10-26).

Also, Demir (2001/0044788) discloses offering terms of a transaction or discount or price

on goods or services based on a rate of reservation which is obtained by calculation results of

factors affecting the transaction and number of transaction reservations (Fig. 4, 5, 9, 10; and

below):

"[0049] FIG. 4 is a block diagram illustrating the dynamic pricing system

according to an embodiment of the invention coupled with a booking engine;

[0036] It is another object of the invention to provide a method for

dynamically pricing air charter services that includes the steps of receiving

trip request information, determining a maximal time allowance, forecasting

demand based upon the demand modules, matching demand based upon the received

trip request information, determining a price discount and outputting the

adjusted sale price based upon the price discount with a cancellation policy

directly associated with the price discount.

[0037] According to one embodiment, the invention provides for system

integration of a booking system with an intelligent pricing module. This

integration provides a seamless information transfer between a booking engine

and a pricing module.

[0058] FIG. 4 shows a block diagram of the dynamic pricing system integrated

with a booking system according to an embodiment of the invention. FIG. 4

shows an intelligent pricing engine 201 that dynamically prices air charter

services based upon demand matching and forecasting. The intelligent pricing

engine 201 is a decision support system that enables automatically setting

prices before fulfilling a trip. The intelligent pricing engine 201 includes a

computer 210 coupled to a storage device 220, a demand forecasting module 230

and a demand matching module 240. A booking engine is coupled to the

intelligent pricing engine 201 and receives trip requests through various

channels from customers.

[0077] In step S160, the system generates a price discount based upon the

demand matching information, along with information related to incentive

promotions, targets and competitions The process then goes to step S170".

Also, notice that Demir's 'bookings' are equivalent to reservations:

"[0063] As an example, a traveler 1 books a trip at a time t.sub.1 from point A

to B starting at t.sub.1(A)".

Demir further discloses determining discount services based on a rate of reservation and presenting the the discount services:

"[0036] It is another object of the invention to provide a method for dynamically pricing air charter services that includes the steps of receiving trip request information, determining a maximal time allowance, forecasting demand based upon the demand modules, matching demand based upon the received trip request information, determining a price <u>discount</u> and outputting the adjusted sale price based upon the price <u>discount</u> with a cancellation policy directly associated with the price <u>discount</u>".

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Demir's dynamic pricing based on demand targets and demands received to Schiff's and DeLorme's dynamic pricing based on a variety of factors relevant to the provider and/or users. One would have been motivated to do this in order to offer pricing or discounts relevant to the situation.

As an alternative to Demir, Campbell (5,918,209) discloses offering terms of a transaction or discount or price on goods or services based on a rate of reservation which is obtained by calculation results of factors affecting the transaction (Fig 2a, 7, 8, 11a, 11b; Claim 36; Claim 43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Campbell's dynamic pricing based on demand targets and demands received to Schiff's and DeLorme's dynamic pricing based on a variety of factors

relevant to the provider and/or users. One would have been motivated to do this in order to offer pricing or discounts relevant to the situation.

Also, Schiff discloses presenting information on discount services:

"(4) The growth of the cruise industry has created an increase in the number of passenger cruise lines that sail each year. Each cruise line offers a variety of cruise packages, and the cruise packages vary depending on destination, sailing date, cruise ship, cabin category, excursions, <u>special discounts,</u> and so forth. While such variety offers great selection to potential customers, finding the cruise package that best fits the customer's budget and preferences is often a difficult task. As a result, travel agents spend large amounts of time and energy researching and booking cruises for customers (col 1, lines 20-30).

(86) The brochure activity 1030 is performed by the agent when sending a customer additional information about one or more cruise lines in the form of a flyer, mailer, brochure, <u>advertisement,</u> or the like. This information may be presented in a hardcopy form that is sent to the customer through conventional methods such as using the postal service or electronically transmitting it to the customer using computer-based methods including email, web pages, facsimile, and other methods of directing the customer to the source of information (col 19, line 60-col 20, line 5).

(97) For example, the rules may be based on different types of <u>incentive</u> programs, time periods, cruise line data, and so forth" (col 22, lines 1-5).

Also, Demir provides information regarding determining discount services according to a rate of reservation.

As noted in the rejection of the above, a booking system and a reservation system are functionally equivalent. The online Merriam-Webster Dictionary at www.m-w.com states the following definition for the word 'booking':

"**1 a :** to register (as a name) for some future activity or condition (as to engage transportation or <u>reserve lodgings</u>) <*booked* to sail on Monday> **b :** to schedule engagements for <*book* the band for a week> **c :** to set aside time for **d :** <u>to reserve in advance</u> <*book* <u>two seats at the theater</u>> <were all *booked* up>. . .

1 : <u>to make a reservation</u> <*book* through your travel agent>

2 *chiefly British* **:** to register in a hotel -- usually used with *in*".

Also, this citation from Schiff is one demonstration of the similarity of booking and reserving:

"(2) The present systems and methods relate to on-line <u>booking</u> of cruises and in particular concern applications designed to facilitate cruise price comparisons, <u>reservations, booking,</u> and customer management by travel agents" (col 1, lines 15-20).

Also, this citation from DeLorme is one demonstration of the similarity of booking and reserving:

"(119) The 595 dialog box includes facilities for the user to input or accept <u>special</u> offers, such as a <u>discount</u> for meals at certain times. The user executes or "<u>books</u>" the proposed <u>reservation,</u> pushing the "<u>BOOK</u> IT" button in the "<u>RESERVATIONS--TICKETS--COUPONS</u>" dialog box. The TRIPS technology communicates the <u>reservation</u> request and

facilitates its acceptance, rejection and/or alteration or a counteroffer from the participating

provider e.g. the Palisade restaurant or its agent(s) (col 50, lines 40-50).

And, Demir demonstrates how 'bookings' are equivalent to reservations:

"[0063] As an example, a traveler 1 books a trip at a time t.sub.1 from point A

to B starting at t.sub.1(A)".

Also, the citations from Demir in the rejection of the independent claims above,

represented here below, demonstrate how Demir correlates the price of goods or services based

on the information known on bookings/reservations and where the information on

bookings/reservations includes a bookings/reservations rate which is calculated based on factors

affecting the transaction and includes information on the numbers of transaction reservations

(Fig. 4, 5, 9, 10; and below):

"[0049] FIG. 4 is a block diagram illustrating the dynamic pricing system

according to an embodiment of the invention coupled with a booking engine;

[0036] It is another object of the invention to provide a method for

dynamically pricing air charter services that includes the steps of receiving

trip request information, determining a maximal time allowance, forecasting

demand based upon the demand modules, matching demand based upon the received

trip request information, determining a price discount and outputting the

adjusted sale price based upon the price discount with a cancellation policy

directly associated with the price discount.

[0037] According to one embodiment, the invention provides for system

integration of a booking system with an intelligent pricing module. This

integration provides a seamless information transfer between a <u>booking</u> engine

and a pricing module.

[0058] FIG. 4 shows a block diagram of the dynamic pricing system integrated

with a <u>booking</u> system according to an embodiment of the invention. FIG. 4

shows an intelligent pricing engine 201 that dynamically prices air charter

services based upon demand matching and forecasting. The intelligent pricing

engine 201 is a decision support system that enables automatically setting

prices before fulfilling a trip. The intelligent pricing engine 201 includes a

computer 210 coupled to a storage device 220, a demand forecasting module 230

and a demand matching module 240. A <u>booking</u> engine is coupled to the

intelligent pricing engine 201 and receives trip requests through various

channels from customers.

[0077] In step S160, the system generates a price discount based upon the

demand matching information, along with information related to incentive

promotions, targets and competitions The process then goes to step S170".

Demir further discloses determining discount services based on a rate of reservation and

presenting the discount services:

"[0036] It is another object of the invention to provide a method for dynamically pricing

air charter services that includes the steps of receiving trip request information, determining a

maximal time allowance, forecasting demand based upon the demand modules, matching

demand based upon the received trip request information, determining a price <u>discount</u> and

outputting the adjusted sale price based upon the price <u>discount</u> with a cancellation policy

directly associated with the price <u>discount</u>".

Demir's disclosure concerning various aspects related to booking is functionally

equivalent to a reservation and Demir's disclosure, as noted in the citations above, demonstrates

terms of a transaction or pricing and pricing discounts correlated to a reservation/booking rate.

And, Demir discloses correlating demand (reservation/booking/forecast use) for a

transaction with price discounts, promotions, and targets (Demir, [77]). And, Baker discloses

that the discount for a transaction can be based on how many reservations have been made. And,

Cragun discloses that weather and promotions can be utilized to forecast how many transactions

will occur. Therefore, it would be obvious that Schiff's dynamic pricing for

booking/reservations can consider both reservations and weather affected transactions in

determining the total demand. One would be motivated to this in order to better offer

pricing/discounts relevant to the situation.

Claims 2, 8, 9, 10, 11, 12: Schiff discloses a method, system, apparatus, medium for

accepting transaction reservation provided with a plurality of terminal devices, and an apparatus

for accepting transaction reservation, connected to the terminal devices respectively, to accept

reservation for a transaction of a transaction target, characterized in that

said accepting apparatus comprises:

(i) a terms determination means for determining terms for a transaction of a transaction target

(col 11, line 60-col 12, line 17; col 12, lines 22-36); and

(ii) a transaction terms display means for displaying the terms for the transaction determined by

the terms determinations means (col 7, lines 20-34; col 12, lines 22-36);

said terminal devices comprises:

(i) an accepting means for accepting reservation application data which represents reservation

application for a transaction of a transaction target based on the displayed terms (col 12, lines 17-

23; col 12, lines 22-36); and

(ii) a transmission means for transmitting the reservation application data accepted by the

accepting means to the accepting apparatus (col 12, lines 17-23; Fig. 1; Fig. 2A); and

said accepting apparatus further comprises a storage means for storing received reservation

application data, when the reservation application data is received (Fig. 2A).

Schiff further discloses a storage medium and a controller (Fig. 2A).

Schiff further discloses that incentives, time periods, and reservations are related (col 22,

lines 1-13; col 1, lines 22-26), accepting the transaction reservation for the transaction target,

performing a transaction in accordance with the transaction reservation (col 12, lines 17-36), and

re-presenting data based on the accepted transaction reservation for the transaction target (col 11,

lines 10-16; Fig. 2b; Fig. 3a).

Schiff does not explicitly disclose that the discounts are related to the time period that the

reservation is made for.

However, DeLorme discloses that presenting bargain data to a transaction target related

to the time period that the reservation is made for (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6; col

41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45).

DeLorme further discloses re-presenting bargain data based on the accepted reservation

for the transaction target (Fig. 9b; Fig. 7b; Fig. 7a; Fig. 5d, item 595).

DeLorme further discloses a terms determination unit for determining terms for a

transaction of a transaction target for each time period (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6;

col 41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45); and

a display system for displaying the terms for the transaction, wherein the transaction reservations

are made via the plurality of terminal devices based on the display terms for the transactions

(Fig. 5d; Fig. 1c; Fig. 9b).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to add DeLorme's reservations goods or services with time period based

discounts to Schiff's time period, reservation, discount related information. One would have

been motivated to do this in order to provide the customer with further, specific information on

the relation of time periods, reservations, and discounts.

Baker further discloses benefits and discounts (col 1, lines 10-50); reservations (Fig. 3);

timing restrictions and other terms on applicable discounts (col 1, lines 55-62); time frame

restrictions and other terms on applicable discounts (col 5, lines 35-45; col 6, lines 40-47; col 6,

lines 47-61; col 7, lines 4-11);

Baker further discloses offering specialized target discounts where the terms or target can

be varied including varying time periods for when the discount would apply (col 8, line 60-col 9,

line 10) and specialized discounts based on the time between the when the reservation is made

and when the reservation is made for (col 9, lines 14-26).

Baker further discloses correlating time periods for reservations to discounts (col 9, lines

31-64).

Baker further discloses that different time periods have different discounts and that the discount information for the different time periods is dynamic (col 10, line 59-col 11, line 7). Also, note that Baker discloses that the time between when the reservation is made and the time that the reservation is made for can be relevant to the discount amount (col 9, lines 14-26). Therefore, both the reservation time and the time period the reservation is made for are relevant to the discount.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Baker's reservations for goods or services with time period based discounts that reflect temporarily changing conditions to Schiff's time period, reservation, discount related information. One would have been motivated to do this in order to provide the customer with further, specific information on the relation of time periods, reservations, and discounts.

Also, please see the analysis for claims 1 and 17 above.

Claim 3: Schiff and DeLorme and Baker and Cragun and Demir or Campbell disclose a method according to claim 2. Schiff further discloses that the determination of the terms for a transaction comprises: determining terms for a transaction based on the state of the transaction reservation (col 20, lines 35-49; col 22, lines 1-13).

Bake further discloses determining terms for a transaction based on the state of the transaction reservation (col 9, lines 15-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Baker's further features for determining terms for a transaction based on the state of the transaction reservation to Schiff's transactions, reservations, and

varying terms. One would have been motivated to do this in order to honor the transactions appropriately based upon the set reservations conditions.

Claim 4, 6: Schiff and DeLorme and Baker and Cragun and Demir or Campbell disclose a method according to claim 2.

Schiff does not explicitly disclose confirming whether the reservation has been accepted.

However, Schiff discloses a variety of communication between a travel agent and a customer (col 1, lines 33-36). Schiff further discloses verifying that a customer is available (col 2, lines 35-40). Schiff further discloses booking and paying for a reservation (Fig. 3A, item 342, item 344).

Schiff further discloses receiving reservations, booking, and payment information (col 12, lines 17-23).

Schiff further discloses sending a response to a user computer after receiving messages from the user computer (col 11, lines 13-15).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that Schiff's response to a user computer can be a confirmation of the reservation that the user has made. One would have been motivated to do this because user's are more confident that a reservation is valid when the user receives notification that the reservation was received.

Additionally, DeLorme discloses confirming whether the reservation has been accepted (Fig. 5d, item 595; col 3, lines 15-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that DeLorme's confirmation of the reservation that the user has made to

Schiff's response to a user computer'. One would have been motivated to do this because user's

are more confident that a reservation is valid when the user receives notification that the

reservation was received.

Claim 5, 7: Schiff and DeLorme and Baker and Cragun and Demir or Campbell disclose

a reception method for deal booking according to claim 4.

Schiff further discloses that it is characterized in that it further comprises the following

steps:

a method according to claim 4, further comprising the steps of:

determining discount services for the reserved transaction which has been confirmed to be

accepted based on its terms (col 20, line·49-col 21, line 12; col 13, lines 17-22); and

offering the discount services based on the confirmed reserved transaction (col 1, lines 22-26; col

22, lines 1-5; col 12, lines 14-17).

Since Schiff discloses that specific packages can be offered to specific customers and that

packages can include special discounts and that specific customers can reserve transactions,

Schiff discloses offering the discounts for reserved transactions.

Claim 13, 14, 15, 16: Schiff discloses a method, apparatus for accepting a transaction

reservation for a transaction target, comprising:

presenting bargain data in relation to the transaction target and reflecting time dependent

booking (col 1, lines 22-26); and

accepting the transaction reservation for the transaction target, and performing a

transaction in accordance with the transaction reservation (col 12, lines 17-36).

Schiff further discloses that incentives, time periods, and reservations are related (col 22, lines 1-13; col 1, lines 22-26).

Schiff further discloses re-presenting data based on the accepted transaction reservation for the transaction target (col 11, lines 10-16; Fig. 2b; Fig. 3a).

Schiff does not explicitly disclose that the discounts are related to the time period that the reservation is made for.

However, DeLorme discloses that presenting bargain data to a transaction target related to the time period that the reservation is made for (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6; col 41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45).

DeLorme further discloses re-presenting bargain data based on the accepted reservation for the transaction target (Fig. 9b; Fig. 7b; Fig. 7a; Fig. 5d, item 595).

DeLorme further discloses a terms determination unit for determining terms for a transaction of a transaction target for each time period (Fig. 1c; Fig. 4; Fig. 5d, item 595; Fig. 6; col 41, lines 13-32; col 67, line 60-col 68, line 6; col 50, lines 38-45); and

a display system for displaying the terms for the transaction, wherein the transaction reservations are made via the plurality of terminal devices based on the display terms for the transactions (Fig. 5d; Fig. 1c; Fig. 9b).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add DeLorme's reservations goods or services with time period based discounts to Schiff's time period, reservation, discount related information. One would have been motivated to do this in order to provide the customer with further, specific information on the relation of time periods, reservations, and discounts.

Baker further discloses benefits and discounts (col 1, lines 10-50); reservations (Fig. 3); timing restrictions and other terms on applicable discounts (col 1, lines 55-62); time frame restrictions and other terms on applicable discounts (col 5, lines 35-45; col 6, lines 40-47; col 6, lines 47-61; col 7, lines 4-11);

Baker further discloses offering specialized target discounts where the terms or target can be varied including varying time periods for when the discount would apply (col 8, line 60-col 9, line 10) and specialized discounts based on the time between the when the reservation is made and when the reservation is made for (col 9, lines 14-26).

Baker further discloses correlating time periods for reservations to discounts (col 9, lines 31-64).

Baker further discloses that different time periods have different discounts and that the discount information for the different time periods is dynamic (col 10, line 59-col 11, line 7). Also, note that Baker discloses that the time between when the reservation is made and the time that the reservation is made for can be relevant to the discount amount (col 9, lines 14-26). Therefore, both the reservation time and the time period the reservation is made for are relevant to the discount.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Baker's reservations for goods or services with time period based discounts that reflect temporarily changing conditions to Schiff's time period, reservation, discount related information. One would have been motivated to do this in order to provide the customer with further, specific information on the relation of time periods, reservations, and discounts.

Also, please see the analysis for claims 1 and 17 above.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-17, 20, and 21 have been considered but

are not found persuasive. Also, please note the 35 USC 112 rejections above.

On page 10 of the Applicant's Remarks dated 6/28/06, Applicant describes the

Applicant's invention and where support can be found for the Applicant's Specification.

However, the Applicant's claims 1 does not state what Applicant states on page 10 or in the

Applicant's cited Specifications citations (Figs. 4b and 4c; page 19, line 24-page 20, line 9).

Rather, the Applicant's claim 1 merely states in regard to calculating that a rate of reservation is

obtained on the basis of calculating results of coefficients defined for factors reducing the

transactions and number of transaction reservations.

And, Examiner notes that it is the Applicant's claims as stated in the Applicant's claims

that are being rejected with the prior art. Also, although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van

Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). And, Examiner notes that claims are

given their broadest reasonable construction. See *In re Hyatt*, 211 F.3d 1367, 54 USPQ2d 1664

(Fed. Cir. 2000).

Hence, the Applicant's features added in the Remarks or from the Specification are not

necessarily included in the interpretation of Applicant's claim 1. Rather, the interpretation of

claim 1 is based on the features stated in claim 1. In regards to calculating, those features are as

stated above.

And, calculating results of coefficients defined for factors reducing the transactions and number of transaction reservations is rendered obvious by the combination of the prior art above.

Examiner notes that while specific references were made to the prior art, it is actually also the prior art in its entirety and the combination of the prior art in its entirety that is being referred to. Also, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

And, Demir discloses correlating demand (reservation/booking/forecast use) for a transaction with price discounts, promotions, and targets (Demir, [77]). And, Baker discloses that the discount for a transaction can be based on how many reservations have been made. And, Cragun discloses that weather and promotions can be utilized to forecast how many transactions will occur. Therefore, it would be obvious that Schiff's dynamic pricing for booking/reservations can consider both reservations and weather affected transactions in determining the total demand. One would be motivated to this in order to better offer pricing/discounts relevant to the situation.

Please also note that the additional citations added above have also been added to the rejection above.

Also, Applicant's, 'factors affecting the discount service', and other features of the Applicant's claims are broad and or loosely defined and can be interpreted in several ways. Examiner further notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with the prior art. Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van*

Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

The following prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

a) Fox (20020133385) discloses weather affected forecasting for travel, vacations, other

events and advertising/promotions that affect demand:

"[0042] In summary, the above conventional solutions to weather planning
problems in retail all suffer from one or several deficiencies which severely
limit their commercial value, by not providing: (1) regional and/or local
specificity in measuring past weather impact and projecting future weather
impact, (2) the daily, weekly, and monthly increment of planning and
forecasting required in the retail industry, (3) ample forecast leadtime
required by such planning applications as buying, advertising, promotion,
distribution, financial budgeting, labor scheduling, and store traffic
analysis, (4) the quantification of weather impact required for precise
planning applications such as unit buying and unit distribution, financial
budget forecasting, and labor scheduling, (5) reliability beyond a 3 to 5 day
leadtime, (6) a predictive weather impact model, which links quantitative
weather impact measurement through historical correlation, with quantitative
forecasts, (7) the ability to remove historical weather effects from past
retail sales for use as a baseline in sales forecasting, (8) an entirely
electronic, computerized, EIS implementation for ease of data
retrieval/analysis with specific functions that solve specific managerial
planning applications, and (9) a graphical user interface representing a
predictive model in graphs, formats, and charts immediately useful to the
specific managerial applications.

[0044] The above discussion focused on the retail industry, i.e., the impact of
weather on the retail industry. Naturally, the effects of weather are not
confined to the retail industry. Instead, weather impacts all aspects of human
endeavor. Accordingly, the discussion above applies equally well to many other
applications, including but not limited to retail products and services,
manufacturing/production (i.e., construction, utilities, movie production
companies, advertising agencies, forestry, mining), transportation, the

entertainment industry, the restaurant industry, etc. Furthermore, like retail companies, activities of individual consumers are affected by the weather. Based on the forecasted weather, a consumer's planned special event (e.g., golfing, skiing, fishing, boating, vacations, family reunions, weddings, honeymoons, and the like) will be affected.

[0046] The system also includes a consumer weather planner system which allows consumers, like retail companies, to perform weather-based planning of special events (e.g., golfing, vacations, weddings, and the like) much like retailers as described above.

[0063] The present invention is directed to a system and method for retail performance forecasting. As used herein, the term "retail performance" refers to all statistical metrics related to retail sales performance, such as gross revenue, net revenue, unit sales, customer traffic, etc. For convenience, the present invention is described herein in the context of a retail environment. However, it should be understood that the invention is adapted and envisioned for use at any commercial level, such as manufacturing, distribution, value added reselling, etc., in addition to retail. Moreover, the present invention is well suited and adapted for use with any endeavor and/or industry and/or market that is potentially or actually impacted by weather. This includes, but is not limited to, retail products and services, manufacturing/production (i.e., construction, utilities, movie production companies, advertising agencies, forestry, mining), transportation, the entertainment industry, the restaurant industry, etc.

[0231] For example, for illustrative purposes, the present invention has been described above in the context of the retail industry. However, the invention is not limited to this embodiment. The present invention is well suited, adapted, and intended for use with any endeavor and/or industry and/or market that is potentially or actually impacted by weather. This includes, but is not limited to, retail products and services, manufacturing/production (i.e., construction, utilities, movie production companies, advertising agencies, forestry, mining), transportation, the entertainment industry, the restaurant industry, etc.

Example Alternative Embodiment--Consumer Weather Planner

Introduction

[0232] While the above description has focused on business applications such as the retail industry, the present invention also contemplates a consumer

application. Like business activities, such as activities of retail companies, activities of individual consumers are affected by the weather. Based on the forecasted weather, aconsumer's planned special event (e.g., golfing, skiing, fishing, boating, vacations, family reunions, weddings, honeymoons, and the like) will be affected much like a retailer as described above. The present invention thus contemplates a consumer weather planner system 4300 (similar to forecasting system 102) as shown in FIG. 43.

[0029] At a national level, weather is only one of several important variables driving consumer demand for a retailer's products. Several other factors are, for example, price, competition, quality, advertising exposure, and the structure of the retailer's operations (number of stores, square footage, locations, etc). Relative to the national and regional implementation of planning, the impact of all of these variables dominates trendline projections.

[0042] In summary, the above conventional solutions to weather planning problems in retail all suffer from one or several deficiencies which severely limit their commercial value, by not providing: (1) regional and/or local specificity in measuring past weather impact and projecting future weather impact, (2) the daily, weekly, and monthly increment of planning and forecasting required in the retail industry, (3) ample forecast leadtime required by such planning applications as buying, advertising, promotion, distribution, financial budgeting, labor scheduling, and store traffic analysis, (4) the quantification of weather impact required for precise planning applications such as unit buying and unit distribution, financial budget forecasting, and labor scheduling, (5) reliability beyond a 3 to 5 day leadtime, (6) a predictive weather impact model, which links quantitative weather impact measurement through historical correlation, with quantitative forecasts, (7) the ability to remove historical weather effects from past retail sales for use as a baseline in sales forecasting, (8) an entirely electronic, computerized, EIS implementation for ease of data retrieval/analysis with specific functions that solve specific managerial planning applications, and (9) a graphical user interface representing a predictive model in graphs, formats, and charts immediately useful to the specific managerial applications.

[0043] G. Scope of the Problem

[0044] The above discussion focused on the retail industry, i.e., the impact of weather on the retail industry. Naturally, the effects of weather are not confined to the retail industry. Instead, weather impacts all aspects of human endeavor. Accordingly, the discussion above applies equally well to many other applications, including but not limited to retail products and services,

manufacturing/production (i.e., construction, utilities, movie production companies, advertising agencies, forestry, mining), transportation, the entertainment industry, the restaurant industry, etc. Furthermore, like retail companies, activities of individual consumers are affected by the weather. Based on the forecasted weather, a consumer's planned special event (e.g., golfing, skiing, fishing, boating, vacations, family reunions, weddings,
honeymoons, and the like) will be affected";

b) Bradford (20020004759) discloses dynamic pricing based on reservations made and

other factors:

"[0056] For example, in the travel industry (hotel rooms, rental cars, travel

vouchers, plane tickets, train tickets, bus tickets, and other ancillary

services), sophisticated yield management systems incorporated into reservation

systems may continually adjust the price of an item. Thus, the reservation

system can continually use the process of FIG. 2 to update the pricing for a

listed item. Thus, for example, the listing price ($P) could be lowered or

raised as needed. Similarly, as the departure time arrives, the item could be

shifted from reward inventory to barter inventory.

[0065] Assuming that two days before the reservation night, the luxury hotel

room is still not booked, the reservation system might lower the price, e.g. $P

of $200, $X of $20, preference for barter. This is not a necessary set of

changes, but one selected by the seller with a preference to moving the

inventory and getting a sale rather than losing the room. At this new price,

the inventory just meets the barter/cash ratio of 20% and is classified as

barter at step 202. Most generally, a tolerance around the barter/cash ratio

%C 230 can be used. This may cause the re-computation of one or more rewards

for other inventory by that seller--of which there is none in this example.

The inventory would then be listed for barter at step 206 with the potential

buyer needing to pay $20 and #180.

[0066] In fact, the <u>reservation</u> system could be continually updating the

pricing of an inventory item up until the time of sale. As such the process of

FIG. 2 can be run continuously and separately from the process of FIG. 3 to

allow for maximum seller pricing flexibility";

c) Fox (20050222865) discloses dynamic pricing based on reservations made and other

factors:

"[0013] A second aspect of the invention provides a method for management of

inventory items associated with future events, such as ad time segments. As

before, the method includes steps of (a) receiving a customer request for an

inventory item, (b) generating a table one or more inventory items that most

closely correspond to the customer request using a price forecasting system,

.COPYRGT. selecting an item from the table, and (d) generating a price

quotation associated with the selected inventory item using the price

forecasting system. Next, it is determined if the customer request comprises

an order for which the customer is expected to pay, or a reservation of the

selected inventory item, which reservation has an associated probability of

later becoming an order. Information is stored, e.g, in a data file on a hard

drive or similar storage medium, describing the customer request, including an

indication of whether the request is an order or reservation. Information

needed for price recalculation associated with the customer request is input

into the yield management system. This information can vary depending on the

pricing strategy the yield management system employs, but preferably includes

the amount of time sold and the identity of the time or program segment,

including the station name and date. The pricing data is recalculated with the

yield management system in a manner consistent with a pricing strategy

implemented by the yield management system, so that price changes caused by a

reduction in available inventory due to the customer order or reservation are

taken into account. This represents a departure from prior practice in which

reservations were not taken into account until such reservations matured into

orders. According to a preferred form of this method, the recalculation is

made in a manner that assigns reservations less weight than orders in making

such recalculation, especially a weight proportional to an estimated

probability that the reservation will later result in an order. An inventory

management system corresponding to this method provides suitable software for

entering, storing, retrieving data concerning reservations in a manner consistent with the

described steps".

d) Walker (5,797,127) discloses prices related to changing conditions such as weather:

"(6) The underlying commodity is well defined for an option to buy an airline ticket for

the first type of customer--it is a ticket on a particular flight. Pricing this type of option,

however, is not straightforward because the option price will depend on a number of factors that

are not present in other commodities. For example, the price of an option on a particular flight

may depend upon the date and time of the flight, the day of the week, the weather, special

occurrences in one of the cities (such as the Olympics) and numerous other factors".

e) Fox (6,584,447) discloses promotions related to changing conditions such as weather:

"(42)   In summary, the above conventional solutions to weather planning problems in

retail all suffer from one or several deficiencies which severely limit their commercial value, by

not providing: (1) regional and/or local specificity in measuring past weather impact and

projecting future weather impact, (2) the daily, weekly, and monthly increment of planning and

forecasting required in the retail industry, (3) ample forecast leadtime required by such planning

applications as buying, advertising, promotion, distribution, financial budgeting, labor

scheduling, and store traffic analysis, (4) the quantification of weather impact required for

precise planning applications such as unit buying and unit distribution, financial budget

forecasting, and labor scheduling, (5) reliability beyond a 3 to 5 day leadtime, (6) a predictive

weather impact model, which links quantitative weather impact measurement through historical

correlation, with quantitative forecasts, (7) the ability to remove historical weather effects from

past retail sales for use as a baseline in sales forecasting, (8) an entirely electronic,

computerized, EIS implementation for ease of data retrieval/analysis with specific functions that

solve specific managerial planning applications, and (9) a graphical user interface representing a

predictive model in graphs, formats, and charts immediately useful to the specific managerial

applications."

f) Ouimet (6,078,893) discloses prices related to changing conditions such as weather:

"(24)   where [D] are the demand parameters, and [X] is the set of all variables for all

items. Notice that in general, the sales of one item can depend upon the parameters of all the

other items. The reason for this is that the demand for a single item can and usually does

depend upon the demand for all other items. This can in general lead to a system of coupled

equations that describe the demand for each item in a given group. The variables that affect the

demand can include, but is not limited to, price, sales history, promotional activity, weather

conditions, location, currency exchange rate, inflation rate, etc";

       g) Walker (20050137011) discloses calculating a price based on factors considering
reservations, day of the week, etc:

       "[0077] As stated above, the current price formula 283 associated with a product
is used to determine the current price 280 of the product. The current price
formula 283, according to one embodiment, incorporates revenue management
principles to determine an approximate maximum price for which a product may be
sold through a retail channel. The current price formula 283 may take into
account any combination of factors, such as the list price 279 of the product,
the product cost 281, availability of the product as reflected by metrics such
as the product inventory 278, and/or product demand as reflected by metrics
such as a number of sold out shows, a number of reserved hotel rooms, a number
of unsold seats, and/or a current day of the week. As stated above, a current
price 280 of a product may be determined based on demand for a different
product. For example, the current price formula 283 associated with a hotel
suite 277 is a function of a number of sold-out shows".

       Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Arthur Duran whose telephone number is (571) 272-6718. The

examiner can normally be reached on Mon- Fri, 8:00-4:00.

       If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arthur Duran
Primary Examiner
7/25/2006